SEQUENCE LISTING

<110>	Yoshihara, Yoshihir	0			
<120>	MODEL ANIMALS FOR	R VISUALIZATION	OF NEURAL	PATHWAYS	
<130>	382.1031CON				
<141>	2003-07-14				
<150>	US 09/763,117				
	JP 98/232817				
<151>	1999-08-19				
	1998-08-19				
<160>	3				
<170>	PatentIn version 2	0			
<210>	1				
<211>	998				
<212>	DNA				
<213>	Triticum aestivum				
<220>					
<221>	CDS				
·<222>	25660				
<400>	1				
accago	acca agaaaacaaa aa	agc atg aag atg	atg agc acc	c agg gcc ctc	51
		Met Lys Met	Met Ser Thr	Arg Ala Leu	
		1	5		
gcg ct	c ggc gcg gct gcc g	ste etc gee tte	gcc gcg gcg	acc gct cag	99
Ala Le	ı Gly Ala Ala Ala Va	al Leu Ala Phe	Ala Ala Ala '	Thr Ala Gln	
10	15		20	25	

gcc	cag	agg	tgc	ggc	gag	caa	ggc	ago	aa	c ate	g ga	g tgo	c cc	c aac	aac	147
Ala	Gln	Arg	Cys	Gly	Glu	Gln	Gly	Ser	Asn	Met	Glu	Cys	Pro	Asn	Asn	
				30					35)				40)	
ctc	tgc	tgc	agc	cag	tac	ggc	tac	tgc	ggg	atg	ggc	ggc	gac	tac	tgc	195
Leu	Cys	Cys	Ser	Gln	Tyr	Gly	Tyr	Cys	Gly	Met	Gly	Gly	Asp	Tyr	Cys	
			45					50)				5	5		
ggc	aag	ggc	tgc	cag	aac	ggc	gcc	tgc:	tgg	acc	ago	aag	g cg	c tgc	ggc	243
Gly	Lys	Gly	Cys	Gln	Asn	Gly	Ala	Cys	Trp	Thr	Ser	Lys	Arg	Cys	Gly	
		60					65))				7()			
agc	cag	gcc	ggc	ggc	gcg	acg	tgo	acc	aa	c aa	c ca	g tg	c tg	c ago	cag	291
Ser	Gln	Ala	Gly	Gly	Ala	Thr	Cys	Thr	Asn	Asn	Gln	Cys	Cys	Ser	Gln	
	75					80					8	5				
tac	ggg	tac	tgc	ggc	ttc	ggc	gcc	gag	tac	tgc	ggc	gcc	ggc	tgc	cag	339
Tyr	Gly	Tyr	Cys	Gly	Phe	Gly	Ala	Glu	Tyr	Cys	Gly	Ala	Gly	Cys	Gln	
90					95					100)				105	
ggc	ggc	ccc	tgc	cgc	gcc	gac	atc	aag	tgo	ggc	ago	cag	g gc	c ggc	ggc	387
Gly	Gly	Pro	Cys	Arg	Ala	Asp	lle	Lys	Cys	Gly :	Ser	Gln	Ala	Gly G	ly	
				110					113	5				120)	
aag	ctg	tgc	ccg	aac	aac	ctc	tgc	tgc	agc	cag	tgg	gga	ttc	tgc	ggc	435
Lys	Leu	Cys	Pro	Asn	Asn	Leu	Су	s Cy	s Se	r Gli	n Tr	p Gl	y Ph	е Су	s Gly	
			125					130)				13	5		
ctc	ggt	tcc	gag	ttc	tgc	ggc	ggc	ggc	tgc	cag	agc	ggt	gct	tgc a	agc	483
Leu	Gly	Ser	Glu	Phe	Cys	Gly	Gly	Gly	Cys	Gln	Ser	Gly	Ala	Cys	Ser	
		140					145	5				15	0			
acc	gac	aaa	ccg	tgc	ggc	aag	gao	c gc	e gg	c gg	c ag	a gt	t tg	c act	aac	531
Thr	Asp	Lys	Pro	Cys	Gly	Lys	Asp	Ala	Gly	Gly	Arg	Val	Cys	Thr	Asn	
	155					160	1				16	5				
aac	tac	tgt	tgt	agc	aag	tgg	gga	tcc	tgt	ggc	atc	ggc	ccg	ggc	tat	579
Asn	Tyr	Cys	Cys	Ser	Lys	Trp	Gly	Ser	Cys	Gly	lle	Gly	Pro	Gly 5	Гуr	

kv s

170 175 180 185

tgc ggt gca ggc tgc cag agt ggc ggc tgc gat ggt gtc ttc gcc gag 627 Cys Gly Ala Gly Cys Gln Ser Gly Gly Cys Asp Gly Val Phe Ala Glu

190 195 200

gcc atc acc gcc aac tcc act ctt ctc caa gaa tgatgatcaa tcttgctatg 680 Ala lle Thr Ala Asn Ser Thr Leu Leu Gln Glu

205 210

gcagtattgc aacgacgaat aatccgtggc aatctcattg ccacctacgg tttcccttga 740 cttactttta gagtactagt ccttaataat tctctagctt gcaatatgat gtgcaggtta 800 ctgcagcaga aacaaaatat tgctgtcgtg catgcatgga aatattgcag tgagaaagta 860 ctgtgtggca atatagggtg tgctattgtt gccgcaaatt agttttcttg ttatgacctg 920 ttgtcaggat gcatgcatgg ctgttgtaat gttggagtac ttcgtgattt cgttgcaata 980 tattaccatg gttctcac 998

<210> 2

<211> 3935

<212> DNA

<213> Mus musculus

<220>

<221> exon

<222> 1369..1423

<220>

<221> intron

<222> 1424..1576

<220>

<221> exon

<220>

<221> intron

<222> 1702..2650

<220>

<221> exon

<222> 2651..2767

<400> 2

60 gcttaactgg tttcctgaaa ggtatcttgg agataggaac agactctcag agcatggtca 120 gaaagccaca gctcatcaat gaaatggtca gggacttcct gtcctgctcc atgcataaat gaaagacgaa gacaactcaa attggcattt gaggggcaga taaacaggag catccggtag 180 tttcacaggt ggtcgggtag caggagccgg gttggttggt tggtctgtgg agagtgcagg gattaaggga agaggcctgg accccaactt cttccttggc tacccccctg aaaatgtcac ctgccttgca tggacgaact cacaggcagg aatgggttgg cttgggtggg gacatcctgc aggttccacc ctcatgttgg ttcatcttca acattgtact gacttcttcc cacttgacat 420 480 tcctcaaggt cctgtgatca tggctgggtc tagtgaggtt caaacctgca ctgccctacc cacacccaca cccagetcag cgtcagtcag gatcaacaat tacctagaga tcatetttet 540 600 ggggcttaag cattggtggg agcagatggg atatgagctg gggatttggg aatgggggaa 660 gatatetget ecceetecee etacaceeta geettttaaa aggeettete aggteagaga ccaggagaaa agtataggag agatacacaa tggaccagga agaagaaaag ggagagggag 720 gctcagacct tctagacaag gtaagagggc tctggctgac tccaccatcc gcttcttgag 780 gtctcggcac ctgtaattga caagattaat tcatttatag ggcatctaat tagcaagcaa 840 gtctctggag tcccctgacc cagttactat aacacacagg gggtataggt aggagagtat 900 960 aagagcccct cctcagggca aatgaatgga ttcttagtac tgtcccccaa gagatagtag gtactaggat ttaggggcac ttctgagccc catttccctg gtaagtgtcc caacccccca 1020 aatcaaccca agcctggtct caatctagga cagtggtaga atgctgtccc tagagtcagt 1080

accatgtgaa attgtgctgc aggcaggggc cccaggctgg gaggtggggg ttgggggagt 1140 cagggcaggt cagggaagga gactcaggtt tcatttagag aaattctgca gacccgtgag 1200 gactatggtg agagcagaga tgggaaggca ggcactgttt cgggtggatg ctgtctggaa 1260 gacagggaag gcacagacca aactaaacca atcacgtctg tccccaaggc aggttcaccg 1320 gaccaggaag gcttcttcaa cctgctgacc cacgtgcagg gcgatcgg atg gag gag 1377 Met Glu Glu

1

cag cgc tgt tcc ttg cag gct ggg cca ggc cag aac cca gaa agc c 1423 Gln Arg Cys Ser Leu Gln Ala Gly Pro Gly Gln Asn Pro Glu Ser

5 10 15

20 25

atg gac aat ctc atg gat atg ctg gtc aac acc cag ggc cgc cgc atg 1644 Met Asp Asn Leu Met Asp Met Leu Val Asn Thr Gln Gly Arg Arg Met

30 35 40

gac gac cag cgt gta aca gtt aat tee etg eet gge tte eaa eet ate 1692 Asp Asp Gln Arg Val Thr Val Asn Ser Leu Pro Gly Phe Gln Pro Ile

45 50 55

ggc ccc aag gtaggtgatg tccagattac ctgtgagact ccacatagct 1741
Gly Pro Lys

60

ctctaaatct atgacctgtc tctaggcagg aaaggaggg accctatgaa cacgtaaagt 1801 gctatgggct taaggtcagg tggcaggact catgctagtg cagaactatg gctggaaatt 1861 acagttcctg ctccaacatc tgtatatttg ggagaggcca cagggagaaa acaggcagtt 1921 ttcctggaag gcatatgaat gcatacccct ataaatcaat gaagagtagg gcttctgttt 1981 gggagtgttt tgctttattg tttttgagac agggtttcat gtagctctgg ctggcatgtt 2041

ctectacatg tgeatectgg gttetgggat aacaggtgtg agteaceatg agtgatgtat 2101
gtgggtaggg atagaaceca gggetttgat geagteteta teaactgage teeageecea 2161
geectatgte tgtgtacatt ageatacatg tttagagete egggeacaeg tgtgeacaeg 2221
caggtggagg ceagaagtea ateteetgee etgggagett teagtgeeet ggaacteeag 2281
gtagateagg etetetaget aggaageeet tgggateete etgaetetta ageactgaga 2341
ttacaagtge ataaaeceae acetggetta aacteaggte tteaaatgag eatageaagg 2401
attteaatga etgagetate tteteaaete aactgtttgt ttgtttgtt tagtatttag 2461
etttgaacte aaaataatee teetgeetgt ttettgagta etgggattae aggtataeae 2521
taacaggeea atgtetgace aaataceaee aeeetaatta geagaegaaa aaaaaaeatt 2581
gtttggagge aettetgaet tgeactttee ttggteeeet eeeteegtet gaeeettett 2641
cateeeeag gat gga atg eag aaa ega eet ggg ace ete age eet eaa 2689

 $\hbox{Asp Gly Met Gln Lys Arg Pro Gly Thr Leu Ser Pro Gln } \\$

70

ccc ctg ctc acc cct cag gat cct gct gca ctc agc ttc cgc agg aac 2737 Pro Leu Leu Thr Pro Gln Asp Pro Ala Ala Leu Ser Phe Arg Asp

75 80 85

65

age age eee eag aca caa get eet tgagagttet agecateetg 2787 Ser Ser Pro Gln Pro Gln Thr Gln Ala Pro

90 95

ccaagtgtcc gtaggtatac accatcacaa acaacaagaa acctttatgg agacaaggtc 3447
tctagcccag gctagtctgg aattcctact cagtctgctg cttccacttt cctacctatg 3507
gctgagggtg aaatctttat tccaagccca actaggtaag agtgactcag ctccttgggg 3567
aaaacaggtt actgacctga ccctccttct ctcttggcca cagctccctc tgtggaacaa 3627
agtcacaggt gagaacacaa ggcaggagaa tccagagccc cacatccaca acagggttga 3687
ctcatgagag gcagacaatg gatctcaata gcaagttggt gcttcatacc ctcccttccg 3747
caggaattat ccatcaagca ctttgatacc caccttacgc tggacaacat agtcctcaaa 3807
ccactcagcc tgattggaga tccagaacat aaccacgggg aaagtgaggt agagggacat 3867
ctgtaaaagc agaggtggt ggagcacagg gagattgcag ggaagcccaa aggacaggtc 3927
cggagctc 3935

<210> 3

<211> 3279

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> 891..1379

<400> 3

atctctgtct ccaccactca gaggcactca cagactccag ttctgccatc tgtccacata 60 cactgcctgg gttccacctc ccactgacat tcccttgtag gtccccagct tcttccctgg 120 cctcacgtct cccatgggag gtggaggatc agtttaggcg gaatggctgg taggattttg 180 gtggacgtga gagccaatcc tgtggctatg tggttggatc gatcaaacca cggcctctgg 240 gagccgagcc agccgtctgt ctggcagatg atttgggatt tgagagctgc aggttcagat 300 gggaggtgac agtgggctgg gtcctgatgg tgataaagga gagggagaca ccagggcacc 360 tgacaggacc tgacagggc tatgacagaa tggggtggg ggtgcggagg aggaggcaac 420 catggaaagt tggcttggct gactacagaa aactgaaatg tgtgccaccg gtgctacccc 480

gecetgeeae etettteetg gacagtette ggttacetee atgtgtetat aaceteacet	540
ateteceaac agegetgtgg agtatteeat tetteacaaa caageaaage teeagettge	600
cactaccact gtagtcaagg tggttgccac agcagttgat atcagtgctc tggtccccag	660
ggagcccatc accetecage etgectacag cacagettta ecagttagga ggeagttgga	720
cacacacact cetgtgtccc etgttetgag aactgggtgg ggccagaaag getggaaagg	780
gaggcgggcc ttcaggtggc ctcttctctt ggcatcggag gatccagccc acttgattcc	840
ctgacgctgg tggtagtggt ggcagtggca atcgctgtag cacttgggcc atg gca	896
Met Ala	
1	
gag gat ggg ccg cag aag cag ctg gag atg ccg ctg gtt ctg gac	944
Glu Asp Gly Pro Gln Lys Gln Gln Leu Glu Met Pro Leu Val Leu Asp	
5 10 15	
cag gac ctg acc cag cag atg cgg ctc cga gta gag agc ctg aag cag	992
Gln Asp Leu Thr Gln Gln Met Arg Leu Arg Val Glu Ser Leu Lys Gln	
20 25 30	
cgt ggg gag aag aag cag gat ggt gag aag ctg atc cgg ccg gct gag	1040
Arg Gly Glu Lys Lys Gln Asp Gly Glu Lys Leu Ile Arg Pro Ala Glu	
35 40 45 50	
tee gte tae ege ete gat tte ate eag eag eag aag etg eag tte gat	1088
Ser Val Tyr Arg Leu Asp Phe lle Gln Gln Gln Lys Leu Gln Phe Asp	
55 60 65	
cac tgg aac gtg gtt ctg gac aag ccc ggc aag gtc acc atc acg ggc	1136
His Trp Asn Val Val Leu Asp Lys Pro Gly Lys Val Thr Ile Thr Gly	
70 75 80	
acc tcg cag aac tgg acg ccc gac ctc acc aac ctc atg aca cgc cag	1184
Thr Ser Gln Asn Trp Thr Pro Asp Leu Thr Asn Leu Met Thr Arg Gln	
85 90 95	
ctg ctg gac ccc gcc gcc atc ttc tgg cgc aag gaa gac tcc gac gcc	1232
Leu Leu Asp Pro Ala Ala Ile Phe Trp Arg Lys Glu Asp Ser Asp Ala	

atg gat tgg aat gag gca gac gcc ctg gag ttt ggg gag cgc ctt tct 1280 Met Asp Trp Asn Glu Ala Asp Ala Leu Glu Phe Gly Glu Arg Leu Ser 115 120 125 130

gat ctg gcc aag atc cgc aag gtc atg tat ttc ctc atc acc ttt ggc 1328

Asp Leu Ala Lys Ile Arg Lys Val Met Tyr Phe Leu Ile Thr Phe Gly

135 140 145

gag ggc gtg gag cct gcc aac cta aag gcc tct gtg gtg ttt aac cag 1376 Glu Gly Val Glu Pro Ala Asn Leu Lys Ala Ser Val Val Phe Asn Gln 150 155 160

ctc tgatgaeage cetggetgee etacceetgg ecceaectet ecettgeetg 1429 Leu

gateteette eteatgtgta titgggggae attettetag etgeteetee tgtgeteate 1489 ttggccagag ttcccccgag tgctacatcc cctcctttc cctggtgcca gtgctgcggc 1549 tcacagtgat gtcccatggc tccgtagtct agatctagaa gccggatgct gctactatag 1609 actgtagagg ccttttgggt ccacgtggga agatggatgg gccccctgtg gtgaagagcg 1669 ggactgagag ataaagagac tgaccaagag atgcaaacgg ccagcactga ttcctccctt 1729 cagggacggg agactgagac tggacaggaa caccttccgg ggaacctggc aagaaggcgt 1789 ttgccctgct ggccaaagct ggagccagga ggcgaatgcc cagcctctgg cagcaggaag 1849 gtteteetee eagtgtegge ageageeege tgtgaeetta gggeetteaa gaeaetggge 1909 aggatgacag cggggcttga tctgactgct tttccaggtc tgggcctggt ttttatggag 1969 aagtgagaga gtgtgtagaa actgaaacaa ctctagccac ccacgctcat atgggtattg 2029 agagatggca taactattig tatggatgtg ggcctgaggg ctagtcttgg tgaggagtaa 2089 ggctaacttt agtttaatta ttgagctggt actggcttgt gggcttggtg gaggtgatcc 2149 tgactgaggc gtccttggtg cagtgctttt tgaactggga gactgagact cgaatggtgt 2209 agcagagtta gaggggtcca gggctctgag ctagcaacag tgatgtccct gttaggaagg 2269 ctggcatttg ctgctcgctg gtgttgtgcc ctgctgtcac cccctgggc atatcctggc 2329 tgttctcctg gagtgcagac ccctaagtaa ggcttgggtg ggggcagtta ggatgcctga 2389 cgtctgaagt gggctggagc tatctgactg tgatgcctaa actgacagga aaacggtggc 2449

acagttagea ggtteagete taccecaagt eteattgtee etegeettge acateetgaa 2509
ageetteeat tgeetgttae etageateag eeagaggtae eteageagtg teecetgaet 2569
gteteaagge tgeeteete gggeataetg aaggtaggat etgteeeage tggtgagetg 2629
ceaggaetge aaaceeeage teaggtgeag gattetggag geaggagata ggetgtggta 2689
ceggtgtete ttgageeggt geetetgete eataacatge ttgeegaage actggeeggt 2749
gettetggat tetgetgaet etagggagee acaceeagae agtgeetetg eettetget 2809
tetetteetg aceteteeet acagetttag agaeeeettt ggtteacaet geetgtgeee 2869
caactetgee teacteggat eegtetgeee tgtggggaea tgagtgtete tgttgtgeet 2929
gttteacaat aaagaetgt tgeeeteeee tetgtggtgt ggtgtgtgt eeteegtgt 2989
gtggtttgea eatettgetg eaageeeata geateagaat eetteeteta tgggeeetgt 3049
agetetgage aacteeacee tgeeageett gaggatgagg eegagtegtg agatetetea 3109
tgaggattga gttteaeetg teageeaggt tteetggetg eeetgeaggt aceaateete 3169
tagggtatga aagageatge taaagetatg ettgggeag gggagtgtag egggtaggae 3229
tgataetaat ttagettggt ettggteaet gtttggetgt geeetetaga